

REMARKS

Reconsideration of the above-referenced application in view of the following remarks is respectfully requested.

Claims 1-11 were pending in this application. New Claims 12-19 have been added. Claims 1 and 11 have been amended to correct informalities identified by the Examiner.

Applicant thanks the Examiner for indicating the requirements for properly disclosing references. Applicant submitted an information disclosure statement in accordance with the relevant rules on May 23, 2003.

Claims 1-17 stand rejected under 35 U.S.C. 112, second paragraph. Applicant notes that only Claims 1-11 are pending in this application. Claims 1 and 11 have been amended to correct the informalities in those claims identified by the Examiner.

Claims 1-3 and 7-11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kurtz, et al. (U.S. Patent No. 4,390,771). Claim 1 includes the feature of "automatically calculating the train of consecutive EFO current pulses of various heights and widths to produce the desired ball characteristics in a predetermined amount of time." Kurtz does not teach or suggest such a step. The passage in Kurtz at col. 3, lines 47-50 referred to by the Examiner reads as follows:

"[t]hus, the number of pulses or duration of the pulse train, the pulse width or duty cycle, and the pulse height or amplitude may be varied to precisely meter the delivered energy."

This statement says nothing to suggest automatically calculating a train of pulses of various heights and widths. Therefore, Applicant respectfully submits that

Claim 1 is patentable over Kurtz. Claims 2-3 and 7-11 depend from Claim 1 and are therefore patentable over Kurtz at least by virtue of their dependence from a patentable base claim.

Claims 1-6 stand rejected under 35 U.S.C. 102(b) as being anticipated by Bancroft, et al. (U.S. Patent No. 4,523,071). Claim 1 includes the feature of "automatically calculating the train of consecutive EFO current pulses of various heights and widths to produce the desired ball characteristics in a predetermined amount of time." Bancroft does not teach or suggest such a step. The passage at col. 4, lines 19-25 referred to by the Examiner reads as follows:

"[i]n forming a ball at the tip of the wire there will be a number of variables whose optimum value depends on various circumstances. Therefore, it is not possible to give a particular set of values which will yield the best results in all cases. Instead these variables will be noted, their relationship will be explained, and the manner in which their values should be selected will be set forth."

This statement says nothing to suggest automatically calculating a train of pulses of various heights and widths. Therefore, Applicant respectfully submits that Claim 1 is patentable over Bancroft. Claims 2-6 depend from Claim 1 and are therefore patentable over Bancroft at least by virtue of their dependence from a patentable base claim.

New Claim 12 includes the step of "exposing the end of the wire to a plurality of current pulses, wherein each pulse in said plurality has a lower magnitude than the preceding pulse." Support for the new claim can be found on page 13 of the specification in the first full paragraph on that page, as well as in Table 1 appearing on the same page, and in Figure 8. The cited references do not teach or suggest such a step. Therefore, Applicant respectfully submits that Claim 12 is patentable over those references. Claims 13-15 depend from Claim 12 and are therefore patentable over the cited references at least by virtue of their dependence from a base claim. Support for Claim 13 may be found at

the same places in the specification as indicated above for Claim 12. Claims 14 and 15 find support in Table 1 on page 13 of the specification.

New Claim 16 includes the steps of "exposing the end of the wire to a first current pulse; exposing the end of the wire to a second current pulse, wherein the second pulse is of lesser magnitude than the first pulse; and exposing the end of the wire to a third current pulse, wherein the third pulse is of a magnitude between the magnitudes of the first and second pulses." The cited references do not teach or suggest such a step. Therefore, Applicant respectfully submits that Claim 16 is patentable over those references. Claims 17-19 depend from Claim 16 and are therefore patentable over the cited references at least by virtue of their dependence from a base claim. Support for Claim 16 may be found on page 14 of the specification in the second full paragraph on that page, as well as in Table 2, and in Figure 9. Support for Claim 17 may be found in the same places in the specification as for Claim 16. Support for Claims 18 and 19 may be found in Table 2.

Applicant respectfully requests reconsideration and withdrawal of the rejections and allowance of Claims 1-19. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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